4.14 WILDFIRE

Acronyms

AB	Assembly Bill
AMSL	Above mean sea level
CalFire	California Department of Forestry and Fire Protection
CBC	California Building Code
CEQA	California Environmental Quality Act
CFC	California Fire Code
CPUC	California Public Utilities Commission
CUPA	Certified Unified Program Agency
EIR	Environmental Impact Report
FRAP	Fire and Resource Assessment Program
GFD	Glendale Fire Department
GWP	Glendale Water and Power
HMBP	Hazardous Materials Business Plan
LFG	Landfill gas
LRA	Local Responsibility Area
mph	Miles per hour
NEC	National Electrical Code
NFPA	National Fire Protection Association
POU	Publicly owned electric utilities
PRC	Public Resources Code
RICE	Reciprocating internal combustion engines
SAOs	Santa Ana Wind Occurrences
SB	Senate Bill
SCLF	Scholl Canyon Landfill
SCAQMD	South Coast Air Quality Management District
USAR	Urban Search and Rescue
VHFHSZ	Very High Fire Hazard Severity Zone
WMP	Wildfire Mitigation Plan

This section describes the effects on baseline wildfire risk that would be caused by implementation of the proposed Project. The following discussion addresses existing environmental conditions in the affected area, summarizes applicable laws and regulations related to wildfires, analyzes potential environmental impacts of the proposed Project, and recommends measures to reduce or avoid significant impacts anticipated from the proposed Project construction and operation. In some cases, compliance with these existing laws and regulations would serve to reduce or avoid certain impacts that might otherwise occur with the implementation of the proposed Project. The approved Fire Protection Design Basis Plan is included as Appendix M.

4.14.1 Environmental Setting

As discussed in Section 2.2, the proposed Project is located entirely within the boundaries of the existing Scholl Canyon Landfill (SCLF). The proposed Project includes three areas of construction: a partially developed approximately 2.2-acre power plant sub-area including a graded area for the installation of two new water tanks; a proposed approximately 0.62-mile three-inch diameter natural gas pipeline; and a proposed approximately 0.88-mile 12-inch diameter water pipeline.

4.14.1.1 Existing Conditions

Topography

Slope, aspect, and elevation comprise the topography of a geographical area and are highly influential on wildfire behavior. Large upland ridges burn more frequently when compared to valleys, swamps, or riparian areas. Steep slopes promote the preheating of fuels, which can lead to a rapid upslope fire spread. Difficult terrain reduces the effect of fire suppression efforts and often creates barriers for firefighters, aerial attacks, and fire engines. High elevations may contain reduced fuel loads, while mid-elevations may allow for the growth of dense forests and chaparral communities. Elevations across the proposed Project site range from approximately 1,100 to 1,450 feet above mean sea level (AMSL). The Project site is located within the San Rafael Hills, which rise more than 1,200 feet above the alluvial plain within eastern Glendale.

Climate

The Project area has a semi-arid climate characterized as having long, hot summers and moderately cooler winters, which is a typical Mediterranean climate. Mild, wet winters have led to an annual growth of plants and grasses. This vegetation dries out during the hot summer months and becomes exposed to Santa Ana Wind Occurrences (SAOs) during the fall. In general, much of southern California is at baseline risk of wildfires due to regional weather conditions, topography, and native vegetation. Southern California, including the proposed Project site, is periodically affected by SAOs, where hot and dry winds blow from the interior regions towards the Pacific Ocean coastline. The hot and dry nature of these winds, combined with their gusting potential, can create hazardous wildfire conditions. During SAOs, winds in excess of 40 miles per hour (mph) are common, and gusts may exceed 100 mph locally (Glendale 2003). Recent climatic conditions within the City are outlined in **Table 50** below.

Table 50 2018 Monthly Average Temperatures and Precipitation

Month	Temperature (°F)		Precipitation (inches)
	Average High	Average Low	
January	73	51	2.33
February	68	47	0.16
March	69	51	3.66
April	76	56	0.00
May	78	55	0.11
June	77	64	0.00
July	94	71	0.00
August	87	72	0.00
September	81	68	0.00
October	79	65	0.31
November	72	57	1.07
December	63	48	2.60

Source: Wunderground 2018a-l

The average annual precipitation is approximately 17 to 18 inches, with over 74 percent of precipitation occurring between December and March and over 94 percent occurring between November and April (Glendale 2003). However, during dry years (such as 2018), precipitation could be less. Little precipitation occurs during summer, because a high-pressure cell blocks migrating storm systems over the eastern Pacific Ocean.

Winds across the proposed Project area are an important meteorological parameter, as they control both the potential for wildfire spread and the initial rate of dilution and direction of pollutant dispersion. The typical wind speeds and directions for the proposed Project area generally south to southeasterly, ranging in speeds from between four to 13 mph. There is a strong onshore flow from the south through southwest, with higher wind speeds and more predominately onshore winds occurring during the day. The average wind speed between 1943 to 2019 was approximately 5.5 mph (aggregate average).

Vegetation and Fuel Load

Fuels are organic material (living or dead) in or on the ground or in the air that would ignite and burn. Fuel conditions are considered a one of two elements of wildfire behavior having anthropogenic (originating from human activities) and natural components. Anthropogenic influences on fuel conditions are a result of active vegetation management (i.e., prescribed burning, brush removal, or eradication of non-native species), which alters the regions vegetation mixture and structure. Moisture content, amount of fuel, and fuel structure and composition are natural components of fuel conditions. As discussed further in Section 3.4 (Biological Resources), the proposed Project site supports a variety of vegetation communities.

Regional Fire History

Table 51 below describes the regional fire history within the greater Glendale Region since 1999, as documented in the California Department of Forestry and Fire Protection (CalFire) Fire and Resource Assessment Program (FRAP). As part of the FRAP program, CalFire tracks wildfire history, prescribed burns, and other fuel modification projects throughout California.

Table 51 Regional Fire History

Fire Name	Year	Acreage	Distance from Project (miles)
Coyote	2017	0.24	6.06
La Tuna	2017	7,051.35	5.96
Wilson	2017	45.12	8.66
Griffith Park	2015	3.05	5.59
Station	2009	160,833.00	4.14
Santa Anita	2008	556.68	8.01
Barham	2007	224.33	7.71
Griffith Park	2007	752.86	11.84
Lowe	2007	14.33	5.37
Dark	2006	34.99	7.12
Pines	2006	114.44	8.09
Wildwood	2003	68.42	6.68
Mountain	2002	749.09	4.24
Santa Anita	2002	27.71	9.36
Wildwood	2002	112.81	9.36
Foothill	2000	6.98	8.36
Fern	1999	69.45	5.41
La Tuna	1999	162.24	7.84
Rafael	1999	502.47	2.07
Santa Anita II	1999	736.10	8.87

Source: CalFire 2019b

Regional Fire Response

The proposed Project is located within the California Governor's Office of Emergency Services, Southern Region, Region I, Area C. Area C covers approximately 126 square miles of Los Angeles County and includes 12 major cities, each with their own fire department. Each of these cities participates in the regional Unified Response, covered by the Verdugo Fire Communications Center dispatch. Unified Response is a regional borderless fire incident response system. The system covers 12 major cities including Alhambra, Arcadia, Burbank, Glendale, Monrovia, Montebello, Monterey Park, Pasadena, San Gabriel, San Marino, Sierra Madre, South Pasadena, and the Hollywood Burbank Airport. As part of Unified Response, there are 46 engines, 13 trucks, five water tenders, and other specialized units such as Hazmat and Urban Search and Rescue (USAR) equipment. Within this established aid agreement, the Verdugo Fire Communications Center immediately dispatches the closest available units, regardless of city boundary (Glendale 2019a).

According to the City of Glendale Fire Department (GFD), in the past several years, only three fires have exceeded three-alarm status within Area C. Each of these were brush fires which reached a four-alarm level, requiring a 20-engine response. As part of Unified Response, even if 20 engines were required in order to fight a wildland fire, at least 20 engines would remain available for other Area C incidents. Many would be deployed at Key Stations (such as those described in the table below) to minimize response times regardless of where any additional incidents may occur (Glendale 2019a).

Departments and Stations

As discussed above, the City of Glendale is responsible for providing fire protection to the proposed Project, though other nearby stations could respond as part of the Area C Unified Response system or other existing mutual aid agreements, such as those with County of Los Angeles Fire Department, City of Los Angeles Fire Department, and the U.S. Forest Service. **Table 52** lists the closest regional fire stations to the proposed Project site.

Table 52 2018 Regional Fire Stations

Station	Address	Distance (miles)
Pasadena Fire Department Station 39	50 Ave. 64 Pasadena, CA 91105	1.20
Pasadena Fire Department Station 38	1150 Linda Vista Ave. Pasadena, CA 91103	1.33
City of Los Angeles Fire Department Station 42	2021 Colorado Blvd. Los Angeles, CA 90041	1.47
Glendale Fire Department Station 23	3301 E. Chevy Chase Dr. Glendale, CA 91206	1.49
Glendale Fire Department Station 24	1734 Canada Blvd. Glendale, CA 91208	2.48
City of Los Angeles Fire Department Station 55	4455 E. York Blvd. Eagle Rock, CA 90041	2.50
Pasadena Fire Department Station 31	135 S. Fair Oaks Ave. Pasadena, CA 91105	2.51
Glendale Fire Department Station 25	353 N. Chevy Chase Dr. Glendale, CA 91206	2.55
Pasadena Fire Department Station 36	1140 N. Fair Oaks Ave. Pasadena, CA 91103	2.59
City of Los Angeles Fire Department Station 12	5921 N. Figueroa St. Los Angeles, CA 90042	2.91

Source: County of Los Angeles, 2016.

Baseline Fire Risk

The proposed Project is located within a Local Responsibility Area (LRA) mapped by CalFire as Very High Fire Hazard Severity Zone (VHFHSZ). An LRA is an area where fire protection is typically provided by city fire departments rather than by CalFire. Areas which have been mapped as VHFHSZ are the most at risk for fire within the State. The fire hazard severity model used by CalFire to map these areas consists of two key elements: probability of burning and probable fire behavior. The model also includes probability of flames and embers threatening buildings and considers potential flame length, ember generation potential, and overall likelihood of an area burning. Actions such as creating defensible space around buildings or thinning of nearby vegetation can reduce the fire risk of an area. Fire risk is evaluated as a combination of existing hazards plus mitigations (such as vegetation clearance).

In general, the fire hazard of an area is based on a combination of several variables. Some of these include:

- Fuel Load (vegetation type, density, moisture content)
- Topography (slope)
- Weather

- Building construction (considering combustible roof coverings)
- Wildfire history, and
- Whether there are local measures in place to help reduce the zone's fire rating.

According to the City of Glendale General Plan Safety Element (Glendale 2003), the portions of the San Rafael hills containing the proposed Project are mapped as having a high fire severity hazard due to the steep topography, the presence of flammable vegetation, and the limited access in the area. The region has a history of fires, with the entire northern two-thirds of the City having burned since the 1800s. According to the Safety Element, some areas within the City experience a wildfire at least once a decade. In order to reduce the risk of fires, the City has adopted a stringent fuel modification ordinance and requires the use of fire-resistant building materials in accordance with the City's Building and Safety Code (Glendale 2003).

Landfill Gas Release and Fire Risk

The landfill gas (LFG) generated by the existing SCLF, which is currently flared on-site, is substantially less flammable than typical natural gas. In general, natural gas contains roughly 98 percent methane, whereas the LFG generated by the existing landfill contains approximately 35 percent methane. The low flammability of this LFG requires the gas be mixed with typical natural gas, in order for it to ignite within the reciprocating internal combustion engine. In its current composition, the existing LFG will not self-ignite and requires an open flame for ignition. Currently, the LFG is combusted at the landfill in a flaring system at a higher pressure than would be required for the proposed Project. While the proposed Project does include LFG compression associated with operating the power generation equipment, the compression pressure would be lower than that currently existing under baseline conditions. The electrical generating reciprocating internal combustion engines (ICE) would be placed in complete fire protection enclosures with fire suppression systems, and electrical equipment would be placed in enclosures insulated with an oxygen displacing inert gas to further prevent ignition. The existing flares would remain and be used as backup to flare the LFG in the event the reciprocating internal combustion engines (RICE) are unavailable to combust the LFG due to an upset.

Additionally, the proposed Project includes a fire protection system that consists of a new 60,000-gallon water tank, water conveyance piping, two fire hydrants, and fire protection sprinklers inside buildings. The proposed fire protection system was designed to meet National Fire Protection Agency and California Fire Code requirements. The GFD, as the Certified Unified Program Agency has reviewed and approved the proposed Project's fire protection design, which includes verifying compliance with all applicable national, state, and local fire codes.

4.14.2 Laws, Ordinances, Regulations and Standards

This section contains a summary of the Laws, Ordinances, Regulations, and Standards which are applicable to the proposed Project.

4.14.2.1 Federal

National Fire Protection Association

The National Fire Protection Association (NFPA) provides codes and standards (including the National Electrical Code [NEC]), research, trainings, and education for fire protection. The NFPA publishes more than 300 codes and standards intended to minimize the possibility and effects of fire and other risks.

4.14.2.2 State

Assembly Bill 337 – The Bates Bill

Assembly Bill (AB) 337 (September 29, 1992) known as The Bates Bill was a direct result of the great loss of lives and homes in the Oakland Hills Tunnel Fire of 1991. The Bates Bill requires CalFire, in cooperation with local fire authorities, to identify VHFHSZs in LRAs throughout California. Local jurisdictions that do not follow the Bates system are required to follow, at a minimum the model ordinance developed by the State Fire Marshal for mitigation purposes. The City has developed its own fire hazard maps and has adopted stringent hazard mitigation programs which exceed the requirements established by state regulations.

Assembly Bill 3819 – The Brown Bill

AB 3819 (September 25, 1994) known as The Brown Bill expands the roof covering requirements of the Bates Bill. The Brown Bill requires a Class A roof for all new buildings, all roof repairs and replacements, and for existing buildings where 50 percent or more of the roof area is re-roofed, for buildings located within VHFHSZ. Class A roofs provide the highest resistance to fire, and include coverings such as concrete, metal, or clay roof tiles.

Senate Bill 1028

Senate Bill (SB) 1028 was signed into law in September 2016. It requires public electric utilities (San Diego Gas & Electric, Southern California Edison and Pacific Gas & Electric) to conduct a survey of electric lines and equipment which may cause a significant risk of a catastrophic wildfire(s) and prepare annual wildfire mitigation plans for reducing fire threats and to identify who specifically would be responsible for implementing them.

Senate Bill 901

SB 901 was signed into law in September 2018. It reinforces the requirement for public electric utilities to have a Wildfire Mitigation Plan (WMP) and sets an independent review requirement for the WMP. It sets a deadline of January 1, 2020 for the adoption of the WMP by the governing board of municipal/public utilities.

Assembly Bill 111

AB 111 was signed into law in July 2019. It establishes the Wildfire Safety Division within the California Public Utilities Commission (CPUC) and establishes the California Wildfire Safety Advisory Board to oversee and enforce investor owned utilities' safety compliance and evaluate all electrical utilities' compliance with their wildfire mitigation plans.

Assembly Bill 1054

AB 1054 was signed into law in July 2019. It enables the California Wildfire Safety Advisory Board to: make recommendations to the Wildfire Safety Division related to wildfire safety and mitigation; make recommendations related to contents of WMPs; and provide other advice and recommendations related to wildfire safety as requested by the Wildfire Safety Division. Publicly owned electric utilities (POUs) must submit their adopted WMP to the California Wildfire Safety Advisory Board no later than July 1, 2020.

CalFire Wildland Hazard/Building Codes

Included as part of the 2007 California Building Code (CBC), CalFire has established the Wildland-Urban Fire Area Building Standards, which are applicable to all structures located within an LRA VHFHSZ. These requirements establish minimum standards for materials and material assemblies and provide a reasonable level of exterior wildfire exposure protection for buildings in Wildland-Urban Interface Fire Areas. The use of ignition resistant materials and design to resist the intrusion of flames or burning embers projected by a vegetation fire (wildfire exposure) will prove to be the most prudent effort California has made to try and mitigate the losses resulting from our repeating cycle of interface fire disasters (CalFire 2019).

California Building Code

The CBC contains applicable fire safety standards and the California Fire Code (CFC). The CBC follows standards recommended by the California Building Standards Commission and the latest International Fire Code. The CBC sets buildings standards ensuring all structures are designed to provide the required emergency access. Additionally, the CBC contains guidance on design features, including fire sprinklers, fire flow standards, emergency access roads standards, and/or storage of flammable materials, which comply with fire department minimum requirements.

California Fire Code (California Code of Regulations Title 24, Part 9)

Based on the 2015 International Fire Code, and as published by the California Building Standards Commission, the CFC regulates minimum fire safety requirements for new and existing buildings, facilities, storage, and processes. The CFC addresses fire prevention and protection, life safety, safe storage, and use of hazardous materials. The CFC is a design document which sets forth the minimum requirements for hazards and contains the requirements for maintaining life safety of building occupants, protection of emergency responders, and limits damage to a building and its contents as a result a fire, explosion, or unauthorized hazardous materials discharge.

California Public Resources Codes

A number of California Public Resources Code (PRC) sections are applicable to the proposed Project, as listed below:

Code 4119: Authorizes agencies to inspect all properties, except a dwelling's interior, to ascertain compliance with state forest and fire laws, regulations, or use permits.

Code 4290: Contains regulations for implementing minimum fire safety standards related to defensible space that are applicable to lands designated as VHFHSZ.

Code 4291: Requires 100 feet of defensible space around all structures.

4.14.2.3 Local

City of Glendale
Wildfire Mitigation Plan

In accordance with SB 901 the City Council of the City of Glendale, on December 17, 2019 adopted the City's WMP, prepared and presented by Glendale Water and Power. (GWP). The WMP considers and includes all required and necessary elements of SB 901 including, but not limited to, an accounting of the responsibilities of persons responsible for executing the WMP, a description of the preventive strategies and programs to minimize the risk of its electrical equipment causing catastrophic wildfires, protocols for deenergizing portions of the electrical distribution system, and its plans for vegetation management. The WMP can be accessed, in its entirety at https://www.glendaleca.gov/home/showdocument?id=54585.

General Plan Safety and Seismic Safety Element

The 2003 City of Glendale General Plan Safety Element describes the natural conditions that pose a hazard within the City of Glendale and presents goals, policies, and programs to reduce the risk to the City and its residents. The goals, policies, and programs outlined in the General Plan are implemented as a part of Project design, and include (but are not limited to) the following:

Policy 4-1: The City shall ensure to the extent possible that fire services, such as fire equipment, infrastructure, and response times, are adequate for all sections of the City.

- **Program 4-1.3:** The City shall ensure that road standards meet the needs for emergency access.

Policy 4-2: The City shall require all new development in areas with a high fire hazard incorporate fire resistant landscaping and other fire hazard reduction techniques into the project design in order to reduce fire hazard.

- **Program 4-2.1:** The City shall encourage residents to plant and maintain drought-resistant, fire-resistant landscape species to reduce the risk of brush fire and soil erosion in areas adjacent to canyons and develop stringent site design and maintenance standards for areas with high fire hazard or soil erosion potential.

- **Program 4-2.2:** The City shall enforce the Weed Abatement Program in high fire hazard areas.
- **Program 4-2.3:** Fuel management plans shall be required for all new development in areas subject to wildfire.
- **Program 4-2.4:** The City shall enforce the Uniform Fire Code and Municipal Fire Code Amendments for new construction in fire hazard areas, including the use of sprinklers in residential structures.
- **Program 4-2.8:** The City shall enforce a Class A Roofing ordinance or better for residential and commercial developments. Residents with existing wood-shingle or unrated roofing materials shall be encouraged to upgrade to fire resistive building materials, including fire resistive eaves and awnings.

City of Glendale Fire Department
Defensible Space Standards for High Fire Hazard Areas of Glendale

GFD divides the defensible space requirements for structures located within the High Fire Hazard Areas of Glendale into three zones. Zone A (zero to five feet from structure), Zone B (five to 30 feet from structure), and Zone C (30 to 100 feet from structure). Each of these zones have separate vegetation clearance requirements designed to protect the structure, provide areas for firefighting to take place, and modifications to native vegetation to reduce potential fire intensity and flame length. Each of these sets of requirements would be applicable to the proposed Project as the specific distances (Zone A requirements apply from zero to feet from the structure, Zone B requirements apply from five to 30 feet from the structure, and Zone C requirements apply from 30 to 100 feet from the structure).

Glendale Fire Code Amendments

Updated in 2017, the Glendale Fire Code Amendments contains information regarding the implementation and enforcement of regulations and guidelines for fire safety within the City. These amendments have been adopted by the City as changes to the CFC and contain more site-specific guidance and requirements.

4.14.3 Methodology and Thresholds of Significance

4.14.3.1 Methodology

The proposed Project includes the proposed power generation facility footprint, and the natural gas and water pipeline alignments. Baseline conditions within this area are defined as the existing physical environmental setting by which a lead agency determines whether an impact is significant. (State California Environmental Quality Act [CEQA] Guidelines, § 15125, subd. (a)). A significant environmental effect or impact is defined as a substantial or potentially substantial change in the environment. (Pub. Resources Code, §§ 21068, 21100, subd. (d); 20 State CEQA Guidelines, § 15358.). The impact analysis in this section examines the changes in the environment, specifically related to wildfire risk, which may result from the construction and operation of the proposed Biogas Renewable Generation Project.

The analysis in this section relies on numerous publicly available maps and datasets, including those published by the City of Glendale, County of Los Angeles, CalFire, aerial imagery and photographs, and site reconnaissance documenting the vegetative conditions. These sources were used to determine wildfire risk in the vicinity of the proposed Project site. Published literature on fire behavior and indirect impacts on natural resources were also reviewed to assess potential indirect impacts.

4.14.3.2 Thresholds of Significance

As determined in the Biogas Renewable Generation Project Initial Study, the proposed Project would not substantially impair an adopted emergency response plan or emergency evacuation plan. While the proposed Project could increase the risk of wildland fires by introducing new infrastructure into a mapped VHFHSZ, the proposed Project does not include an element that would conflict with the City's Emergency Plan. As there would be no resulting impacts for this topic, only the following three checklist questions were determined to result in potentially significant impacts and are evaluated in this Environmental Impact Report (EIR).

In accordance with Appendix G of the State CEQA Guidelines, the proposed Project would have a significant impact related to wildfire, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones and the proposed Project would:

- Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire.
- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

4.14.4 Project Impacts

Threshold: Would the Project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of wildfire?

4.14.4.1 Construction

Construction activities involving the use of vehicles and heavy machinery, and personnel smoking at the proposed Project site could result in the ignition of a wildfire. During construction, heavy equipment and passenger vehicles driving on vegetated areas prior to clearing and grading could increase the risk of fire. Heated mufflers, and improper disposal of cigarettes could potentially ignite surrounding vegetation and lead to a wildlife. The use of heavy equipment, such as bulldozers and graders during construction activities and to clear vegetation, has the potential to ignite a wildland fire from sparks created when equipment blades strike rocks or metal objects.

Described above in Section 4.7 (Hazards and Hazardous Materials), the construction and operation of the proposed Project would involve the use of some flammable materials such as gasoline, diesel fuel, hydraulic oils, paints, solvents, or other wastes. There is a low risk of fire if these materials were not handled correctly, or if an accidental release were to occur.

The Project site is mapped as a VHFHSZ, during extreme weather conditions an uncontrolled wildfire originating at the proposed Project site could spread off-site and down the slopes of the adjacent San Rafael Hills, posing a risk to life and property. However, the probability of a wildfire to occur as a result of unmitigated Project construction would be low due to the low vegetative fuel load present, expansive un-vegetated areas at the adjacent SCLF, the proposed moderate level of heavy equipment use, and the short term duration of construction activity. Nonetheless, any fire that escapes control or spreads into the surrounding area could result in a large amount of damage, and the risk of fire as a result of unmitigated Project construction is therefore considered potentially significant.

All construction equipment is required to have fire suppression equipment (such as a fire extinguisher) on board or at the work site. Additionally, permitting requirements of the jurisdictional fire agencies, existing fire codes, and the development of a Project-specific fire plan, as required by Mitigation Measure FIRE-1 (Fire Protection Plan), would mitigate this potentially significant impact to below a level of significance.

Project personnel that smoke could start a wildfire by improperly disposing of burning tobacco in areas covered with wildland vegetation and within 50 feet of combustible material storage. Implementation of Mitigation Measure FIRE-2 (Smoking and Open Fires) would address this potential ignition source by prohibiting all smoking or open fires on the proposed Project site and within SCLF in its entirety.

The Applicant has been working with GFD to develop the proposed Project to meet stringent fire safety standards for the San Rafael Hills The approach to fire prevention and defense includes both facility design and planned operational activities. The Project includes a fire protection system that complies with all applicable national, state, and local fire codes.

Trained firefighting personnel and equipment would be stationed on-site during construction activities, and the proposed Project site would be equipped with sufficient water tank capacity to support prompt firefighting response. Implementation of Mitigation Measure FIRE-3 (Firefighting Water Supply) would ensure that firefighting capabilities would be present at all times

With implementation of Mitigations Measures FIRE-1, FIRE-2, and FIRE-3, the proposed Project would have a less than significant impact with mitigation on wildfire risk.

Mitigation Measures

FIRE-1: Fire Protection Plan

The Applicant shall prepare a construction phase Fire Protection Plan. The Plan shall contain, but not be limited to, the following provisions:

1. Comply with all applicable laws of the State of California and the Fire Prevention Plan. Ensure that a copy of this Fire Prevention Plan and any special permits are to be known and in possession of Project foreman/supervisor on work site daily.

2. A full-time fire watch with appropriately trained personnel and appropriate fire-fighting equipment shall be available and on-site during all times when construction work is taking place. The Applicant shall designate a qualified on-site fire supervisor during Project construction to implement the Fire Protection Plan.

   Fire Watch personnel shall be responsible for patrolling the construction work area for the prevention and detection of fires, and to make sure all fire regulations and fire prevention plans are met, and to take/direct suppression action where necessary. The Fire Watch personnel shall not be permitted to perform other non-fire-related duties. Fire Watch personnel shall remain on duty for at least one hour after the close of work or sunset (whichever comes first).

3. All construction equipment shall be fitted with appropriate spark arrestors. Spark arrestors shall meet the standards set forth in the National Wildfire Coordinating Group publication for Multi-position Small Engines, #430-1, or General Purpose and Locomotive, #430-2.

   Unless determined appropriate by the GFD spark arrestors are not required on equipment powered by exhaust-driven turbo charged engines or motor vehicles equipped with a maintained muffler.

4. All construction vehicles and equipment shall carry at least one fully charged fire extinguisher. Fire extinguishers shall be of the type and size set forth in the California PRC Section 4431. Fire extinguishers shall be appropriately maintained throughout construction. The following conditions shall also be incorporated:

   i. Each truck, personnel vehicle, tractor, grader or piece of heavy equipment shall have one shovel, one axe (or Pulaski) and a fully charged fire extinguisher.

   ii. Each welder shall have one shovel and one five-gallon water-filled tank with pump. Shovel and five-gallon water-filled tank with pump must be kept within 25 feet of tools when in use.

   iii. Each gasoline powered tool (such as chainsaws, chippers, rock drills, etc.) shall have one shovel and one pressurized fire extinguisher. Shovels must be kept within 25 feet of tools when in use.

   iv. All tools and equipment above shall be in good workable conditions, with employee's trained on their use.

   v. Shovels shall be "O" or larger and be not less than 46 inches in over length.

   vi. Axes (or Pulaskis) shall have 2.5-pound or larger heads and be not less than 28 inches in overall length

5. Confine welding activities to areas having a minimum radius of ten feet cleared to mineral soil, wet down an area of 25 feet in all directions from the center of welding operations with a 0.3 percent Class A Foam Solution, utilize a welding tent or metal shield where possible to deflect sparks. Fire Watch shall be on standby during welding activities with fire prevention tools including fire extinguishers, shovels, immediate access to a minimum of five gallons of water equipped with a dispensing application. Welding or other hot work shall not occur during red flag events.

6. Refueling shall be performed within previously developed areas a minimum of 25 feet from areas with substantial vegetation or potential ignition source.

7. The Applicant shall participate in the Red Flag Warning program with local fire agencies and the National Weather Service. The Applicant shall stop work during Red Flag conditions. If a Red Flag Warning were to occur during critical work activities, or work activities that cannot be

stopped (such as a heavy lift), the GFD shall be immediately notified. Communication protocols shall be outlined in the plan. The GFD shall approve resumption of construction activities.

FIRE-2: Smoking and Open Fires

Smoking and open fires shall be prohibited for all Project personnel at the site during construction. A copy of the notification prohibiting smoking and fires shall be posted at the construction work areas and included in the worker trainings. This notice shall be provided to the GFD within five business days, upon their request.

FIRE-3: Firefighting Water Supply

The Applicant shall furnish a water truck or trailer on or immediately adjacent to the proposed Project area during construction specifically for firefighting water supply. Fire watch personnel shall be trained on how to access these water tanks in the event of a fire-related incident. The Applicant shall maintain and provide appropriate firefighting equipment to access the water, such as hoses or wrenches. The truck or trailer shall meet the following minimum specifications:

- Water truck and operator must be ready to put fires out at all times
- Water truck or trailer shall contain or meet the following specifications:
    - At least 300 gallons of water
    - A combination straight stream and fog nozzle with 300 feet of one-inch fire hose, with no segment longer than 50 feet
    - Fire hose with nozzle closed shall be capable of withstanding 200 psi pump pressure without leaking, slipping or couplings, distortions, or other failures
    - Nozzle discharge rating of six to 20 gallons per minute
    - A Pump capable of delivering 23 gallons per minute at 175 pounds psi at sea level
    - Power unit for pump shall have fuel for at least two hours of operation, be in good working order, with ample transport available for immediate safe movement of tank over roads serving the project area; pump outlet shall be equipped with 1.5 inch National Standard Fire Hose thread
    - The Water Truck or Trailer MAY NOT be used for other work on the contract
    - If the proposed Project area in inaccessible to water truck or trailer accessibility, a charged hose capable of reaching 100 feet beyond the proposed Project area is required.

Level of Significance After Mitigation

As discussed above, baseline wildfire risks would be exacerbated during construction and would require the implementation of mitigation measures to reduce related risks to less than significant levels. Mitigation Measure FIRE-1 would require firefighting capabilities to be present on-site during Project construction. Mitigation Measures FIRE-2 and FIRE-3 serve to strengthening the requirements of FIRE-1 by further removing potential ignition sources and enhancing on-site firefighting capabilities. Although construction of the proposed Project would result in an increased baseline risk of wildfire, with implementation of

Mitigation Measures FIRE-1, FIRE-2, and FIRE-3, Project-related wildfire construction impacts would be less than significant.

4.14.4.2 Operation

Operational impacts associated with exacerbated wildfire risks and increased potential exposures to pollutant concentrations from a wildfire or an uncontrolled spread of wildfire could occur if operation of the proposed Project would result in an increased baseline wildfire risk or generate increased unmitigated sources of ignition.

As discussed in Section 2.7 (Project Operations), the proposed Project would be operated adjacent to the existing LFG collection and flaring system. The blowers and flares would remain pursuant to the existing South Coast Air Quality Management District (SCAQMD) permit. After the proposed Project is in operation, the flares would only be used as required during power generation facility maintenance or in the unlikely event that there is excess LFG being produced that cannot be used for generating electricity. Fuel (vegetation) management would continue to occur regularly in accordance with GFD regulations.

The electrical generating combustion engines would be placed in fire protection enclosures with fire suppression systems, and electrical equipment would be placed in enclosures insulated with an inert gas, thereby reducing related ignition risks. The existing flares would remain and do not represent a new source of potential wildfire or an increase above the baseline wildfire risk.

The fire protection system has been reviewed and approved by GFD, as the Certified Unified Program Agency. The potential impact radius[72] of an explosion originating from the proposed natural gas pipeline is approximately 9.26 feet. Considering that there are no residences or other habitable structures within the potential impact radius, the vegetation maintenance setback required by GFD, and the pipeline is not publicly accessible, a pipeline explosion would have an extremely low risk of resulting in a wildfire. Additionally, the proposed facilities include a fire protection system that consists of a new 60,000-gallon water tank, water conveyance piping, two fire hydrants, and fire protection sprinklers inside buildings. The proposed fire protection system was designed to meet NFPA and CFC requirements. The Certified Unified Program Agency (CUPA), GFD, has reviewed and approved the proposed Project's fire protection design, which includes verifying compliance with all applicable national, state, and local fire codes.

Potentially hazardous materials would be stored on-site in quantities which would necessitate the preparation of a Hazardous Materials Business Plan (HMBP) per California Health and Safety Code Chapter 6.95. Contained within the HMBP would be information necessary for first responders in order to prevent or mitigate damage to the public health and safety and to the environment. The HMBP would also contain an inventory of hazardous materials at the facility, the emergency response plans and procedures, provisions for training all employees, and a site map. Access roads to the proposed Project

[72] United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration developed an equation that estimates the distance from a potential natural gas pipeline explosion at which death, injury, or significant property damage could occur. This distance is known as the "Potential Impact Radius". The Potential Impact Radius is calculated by the formula r = 0.69* (square root of (p*d2)), where 'r' is the radius of a circular area in feet surrounding the point of pipeline failure, 'p' is the maximum allowable operating pressure in the pipeline in pounds per square inch and 'd' is the nominal diameter of the pipeline in inches.

have been designed to meet the GFD requirements. Compliance with existing rules and regulations would serve to ensure that wildfire related impacts during operation would be less than significant.

Level of Significance After Mitigation

As discussed above, baseline wildfire risks would be not be exacerbated during operation of the proposed Project. Operation of the proposed Project would result in the continuation of compliance with existing rules and regulations governing the handling of hazardous materials, design and maintenance of the fire protection system, and the use of flaring. Operation-related impacts for this threshold would be less than significant, no mitigation measures are warranted.

Threshold: Would the proposed Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

4.14.4.3 Construction

Improvements to the proposed Project site would include a small access road which would run directly through the site to accommodate emergency fire access in accordance with applicable code requirements, installation of a 60,000-gallon capacity firewater suppression tank, a facility fire detection and suppression system, and routine vegetation clearance 100 feet from the power generation facility footprint. The risk of wildfire during construction for these activities in described above.

This road modification would be only within the proposed Project area, as existing SCLF access roads would be used to access the proposed Project site. The access road within the proposed Project site will be constructed according to the Los Angeles County Code Title 32 (“Fire Code”). In addition, the parking lot and water tank areas would be paved/hardscaped. A security fence and gate would be installed along the perimeter of the proposed Project site. Once constructed, the City would oversee ongoing maintenance of the access road. As discussed above, construction of the proposed Project would include implementation of Mitigation Measures FIRE-1 through FIRE-3 to reduce potential fire risk.

The proposed Project is a generation facility and would not require a utility service connection to power the Project. The proposed Project would include electrical switchgear that would allow connection of the produced electricity to the existing GWP electrical system. No other modifications to the existing and current electrical transmission system on-site are proposed. Therefore, the proposed new electrical interconnection would not exacerbate fire risk as it would not alter the existing electrical system on-site, and impacts would be less than significant with mitigation incorporated.

Mitigation Measures

FIRE-1: Fire Protection Plan

FIRE-2: Smoking and Open Fires

FIRE-3: Firefighting Water Supply

Level of Significance After Mitigation

Construction of the proposed Project would temporarily increase the baseline wildfire risk from construction equipment which represents a potential source of ignition. As discussed above, implementation of Mitigation Measures FIRE-1, FIRE-2 and FIRE-3 would serve to reduce the risk of fire during construction. The Project would utilize existing access roads for site access and install a new access road only within the proposed Project site. The Project would not substantially alter or enhance the existing electrical system on-site. With implementation of Mitigation Measures FIRE-1, FIRE-2 and FIRE-3, Project- related construction impacts related to the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment would be less than significant.

4.14.4.4 Operation

Operation of the proposed Project would be limited to activities related to renewable energy generation within the enclosed Project site footprint. During operation of the proposed Project, the 60,000-gallon water storage tank would provide access to water for fire protection at all times. Therefore, the proposed Project would ensure adequate on-site water is available for firefighting and would not exacerbate fire risk.

With respect to potential operational impacts, ongoing vegetation maintenance has a limited ability to exacerbate fire risk. As part of the existing infrastructure, the proposed Project site owners are currently required to perform periodic vegetation maintenance, in accordance with GFD's Defensible Space Standards for High Fire Hazard Areas of Glendale (Glendale 2019f). This fuel modification regime would continue as part of the proposed Project and would serve to reduce and remove, rather than exacerbate, potential fire risk associated with maintenance of Project-related infrastructure. Impacts associated with ongoing routine vegetation maintenance are discussed in Section 4.3 (Biological Resources). As such, Project-related operational impacts would be less than significant. As discussed, operation of the proposed Project would not require or result in any additional infrastructure installation beyond that which is already proposed during the construction phase. Operation-related impacts for this threshold would be less than significant, no mitigation measures are warranted.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than Significant Impact.

Threshold: Would the Project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

4.14.4.5 Construction

As discussed in greater detail in Section 4.5 (Geology and Soils), the proposed Project site is located within an area that is designated as having the potential for landslides, which is also the case for most of the San Rafael Hills. The proposed Project site, as part of the larger SCLF, has been operating as an industrial use since 1961, when the City of Glendale opened SCLF. The proposed Project does not include extensive excavation or new structures that would significantly alter soil stability. While grading would be performed as part of the proposed Project, the grading would be conducted in accordance with applicable codes/standards pursuant with a grading permit. Given that the nearest residence is approximately 2,500 feet for the proposed power generation facility, the proposed Project would not expose persons or structures to substantial effects from landslides after a wildfire, when compared to other existing uses and risks in the area.

A majority of the proposed Project area is open space/landfill and its drainage pattern is defined primarily by an existing storm drain system. There are no streams or river courses on or near the proposed Project site, and no substantial changes are proposed to the site that would alter the drainage or cause flooding or erosion. The Project would establish a new paved parking area, thus creating new impermeable surfaces; however, storm drainage from the parking area would flow to the existing stormwater system within the SCLF. The proposed Project would not substantially alter the existing drainage pattern of the site and surrounding area. Therefore, the proposed Project would not increase the risk of flooding or landslides after a wildfire compared to existing conditions. Construction impacts would be less than significant. As discussed above, construction of the proposed Project would not expose people or structures to increased or significant risks as a result of runoff, post-fire slope instability, or drainage changes. The Project establishes a small new paved parking area, but stormwater drainage would be accommodated by the existing SCLF drainage system and would not substantially change from existing conditions. Construction of the proposed Project would not substantially alter the risk of landslides after a wildfire compared to other uses and risks in the area. Construction related impacts would be less than significant and no mitigation measures are warranted.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than Significant Impact.

4.14.4.6 Operation

The proposed Project would not require periodic earthmoving or drainage changes which could substantially alter the condition of the site during the operation phase. Impacts which could result from increased risks to downslope or downstream areas would be similar to those currently posed by the existing SCLF and would not increase during operation of the proposed Project. As discussed above, operation of the proposed Project would not expose people or structures to increased or significant risks as a result of runoff, post-fire slope instability, or drainage changes. Operation of the proposed Project would not result in ongoing earthmoving or drainage changes which could substantially change the area. Operation of the proposed Project would not substantially alter the risk of landslides after a wildfire, as compared to other uses and risks in the area. As such, impacts would be less than significant and no mitigation measures are warranted.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than Significant Impact.

4.14.5 Cumulative Impacts

The proposed Project is located approximately five miles from the proposed Grayson Repowering Project with an urban interface separating the two. The proposed Project would not result in a cumulatively considerable wildfire impact.

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